Claims

What is claimed is:

1. A network interface device comprising:

a primary interface to interface with a public network over a primary connection;

a back-up interface to interface with the public network when the primary connection fails; and

a back-up utility for monitoring whether a primary connection between the primary interface and the public network has failed and for activating a secondary connection between the back-up interface and the public network when the primary connection fails.

2. The network interface device of claim 1, wherein the primary and back-up interfaces link a node of a virtual private network to a public network.

3. The network interface device of claim 2, wherein the node comprises one of a computer and a network of computers, and wherein the network interface device further comprises a private interface to the node.

4. The network interface device of claim 1, wherein the primary interface comprises an Ethernet interface.

5. The network interface device of claim 4, wherein the back-up interface comprises a dial-up interface to the public network.

6. The network interface device of claim 5, wherein the public network is the Internet and the dial-up interface is connected to an Internet service provider upon a failure of the primary connection.

7. A method for automatically activating a back-up connection to a public network when a primary connection to the public network fails, the method comprising:

providing a network interface device comprising a primary interface to interface with a public network over a primary connection, and a back-up interface to interface with the public network when the primary connection fails;

monitoring the primary interface to determine whether the primary connection has failed; and

automatically connecting to the public network through the back-up interface to provide a secondary connection thereto when the primary connection fails.

8. The method of claim 7, wherein the step of monitoring the primary interface comprises periodically polling a target IP address through the primary interface.

9. The method of claim 8, wherein the polling comprises sending ICMP pings to the target IP address.

10. The method of claim 7, wherein the back-up interface is connected to a modem, and wherein the step of automatically connecting to the public network through the back-up interface comprises automatically dialing an Internet service provider with the modem.

11. The method of claim 7, further comprising:

activating the secondary connection by rerouting links in the network interface device from the primary interface to the back-up interface to enable the secondary connection.

12. The method of claim 7, further comprising:

determining whether the primary connection can be restored;

restoring the primary connection when possible, the restoring of the primary connection comprising disconnecting the secondary connection.

13. The method of claim 12, wherein the restoring step comprises automatically restoring the primary connection.

14. The method of claim 12, wherein the primary and secondary connections connect nodes of a virtual private network that uses tunnels to send data securely over the public network, and wherein the method further comprises re-establishing tunnels for the virtual private network through the back-up interface when the primary connection fails.